IN THE SPECIFICATION:

Please amend the Specification beginning on page 11, line 5 as follows:

-- The receiving station also includes functional elements that operate upon data detected by the receive antennas 22. A receive filter is coupled to the receive antennas to at least suppress out-of-band interference. Subsequent to receive filtering of the data at the receive filter 52, channel estimation operations are performed by the channel estimator 54. Estimated values are prefiltered by a prefilter 56. And, once prefiltered, the data is estimated by a ~~direct~~ decision feedback, sequence estimator (DFSE) 58 and thereafter de-interleaved by a de-interleaver 60, de-punctured by a de-puncturer 62, and decoded by a channel decoder 64. --

Please amend the Specification beginning on page 15, line 7 as follows:

-- ~~An~~ A MMSE-DFE structure of the prefilter/equalizer ~~equlier~~ pair is shown in Figure 3. There are two filters: the feedforward prefilter ~~88~~ 56 which is the space-time prefilter w_{fl} and the feedback filer 92 w_{bl}. At time k, the signal at the input of the MLSE equalizers is: --

Please amend the Specification beginning on page 17, line 1 as follows:

-- The MMSE-DFE prefilter ~~88~~ 56, in one implementation, is biased. An easy way to see the bias is to observe that the MSE between the filter output $z_{l,k}$ and the input symbol $x_{l,k}$ is minimized. However, after the filter optimization, the signal component in

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$z_{1,k}$ is scaled by $\mathbf{w}_{f1}\mathbf{h}_1$ which is not a value of 1 in general. Here we proposed an unbiased MMSE-DFE prefilter with linear constraint to remove the bias. It can be analytically shown that the output SNR (OSNR) of the unbiased prefilter is the same as the biased prefilter, if the output SNR is properly defined. --

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